

Oklahoma Orchestrates Energy Efficiency Solutions

“Oklahoma, where the wind comes sweepin’ down the plain...when the wind comes right behind the rain.” These famous lyrics, written by Oscar Hammerstein, aptly illustrate the need for durable shelter and reliable energy in Oklahoma. This is particularly true for low-income residents, who are most vulnerable to changes in weather and energy costs. To address this fundamental need, Oklahoma partners with the U.S. Department of Energy (DOE) to implement the Weatherization Assistance Program (Weatherization). Weatherization reduces energy costs for low-income households by increasing the energy efficiency of their homes, while ensuring their health and safety.

Low-income households typically spend 14% of their total annual income on energy, compared with 3.5% for other households. Even in Oklahoma, the nation’s third largest natural gas producer, low-income residents shoulder a disproportionate energy burden. Rising energy prices exacerbate this burden. Weatherization reduces home energy consumption, which gives a permanent boost to the household’s budget and provides a safeguard against future increases in energy prices.

PROFESSIONAL ENSEMBLE WITH A PERSONAL TOUCH

Oklahoma’s Department of Commerce administers the state’s Weatherization Program and 19 local agencies deliver services to eligible residents in every county. Professionally trained weatherization crews use a computerized energy audit to determine the most cost-effective measures for each home. Additional diagnostic tools, such as the blower door, are used to identify and mitigate air infiltration and pressure imbalances. Oklahoma crews test gas furnaces and appliances for carbon monoxide, an odorless, colorless gas, which can be deadly in large concentrations. Typical weatherization measures include installing insulation, air sealing, and performing basic heating repairs.

NATIONAL WEATHERIZATION PROGRAM

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| Homes weatherized in 1999 | 68,000 |
| DOE allocations in 1999 | \$135 million |
| Average annual energy cost savings per household | \$300 |
| Average space heating savings | 25-30% |
| Energy benefits returned for every \$1 invested | \$2.10 |
| Jobs supported | 7,000 |

OKLAHOMA

| | |
|---|---------------|
| Homes weatherized in 1999 (with DOE \$) | 965 |
| DOE funding in 1999 | \$1.5 million |
| Clients served in 1999 | 1,988 |
| Elderly | 27% |
| People with disabilities | 17% |
| Families with children | 36% |

Oklahoma prides itself on the professionalism and courtesy of its workforce. The state motto, “Labor conquers all things,” is clearly embodied in the Weatherization Program. Weatherization crews receive technical training at national conferences, regional training centers, and in the field. Their approach to service, however, is a matter of state custom. One recipient of weatherization services commented, “The workers were courteous and polite in their manners. They were meticulous, careful, and hard working in their jobs.”

SWEET SOUND OF ENERGY SAVINGS

Weatherization produces significant economic benefits for low-income Oklahomans. A weatherization recipient in Tahlequah remarked, "Before any work was done, my electric bill for the previous month was \$200.33. My current bill is only \$105.68. I am a mother of three...\$100 may not seem like a lot to most, but for me and my family, that's \$100 we can use in other areas."

High propane bills overwhelmed another Oklahoma homeowner, who was spending \$350 out of her \$500 monthly income for propane. Sarah Parson's* house needed extensive repairs that were outside the scope of the Weatherization Program. The local weatherization agency leveraged resources and secured donated materials so the repairs and

weatherization work could be completed. After weatherization, Sarah spent less than \$150 over three months for propane. The long-term impact of this work was even more significant. The following winter, the carbon monoxide detector installed by the agency sounded a warning. The gas company identified an obstruction in her fuel line, which was spilling a dangerous level of carbon monoxide into Sarah's home. The detector prevented a potentially fatal outcome.

RESTORING PEACE AND HARMONY

The increase in comfort and safety produced through weatherization is often valued as much as the energy savings. One local agency helped an elderly widow on a fixed income who was heating her home with her kitchen stove, an extremely dangerous and ineffective activity. After the weatherization work was complete, she remarked to her son that it was the first time she had been warm since her husband passed away.



Great Plains Community Action Agency provided extensive weatherization services for this elderly homeowner.

Weatherization often partners with other programs and agencies to deliver comprehensive services to low-income households. One Oklahoma agency used Weatherization and leveraged funds to weatherize and rehabilitate the home of an elderly widow, who was raising her disabled grandchild. The child's wheelchair would not fit through many of the home's doorways, including the bathroom. In addition, an unsafe space heater had burned the carpet underneath it, and posed

a serious threat of future fires. The agency modified the doorways, installed a new heating and air conditioning system, replaced the deficient water heater, and performed extensive air sealing and insulation measures.

Weatherization produces economic benefits for the community as well. The program creates local jobs and

reduces the export of energy dollars from the community, which keeps more money in the local economy. In addition, weatherization reduces demand for electricity, which helps to avoid brown-outs and mitigates harmful emissions from power plants. Weatherization improves the safety of neighborhood homes and reduces the risk of fires and other health hazards.

A CHORUS OF WEATHERIZATION BENEFITS

"Weatherization Works" is a popular refrain in Oklahoma. The Weatherization Program produces significant benefits for low-income households and communities. Nationally, for every \$1 invested in the program, Weatherization produces \$2.10 in energy-related benefits. Weatherization creates cost-effective, long-term solutions to energy supply concerns. The program also benefits the nation by reducing consumption of foreign oil and mitigating greenhouse gas emissions. Weatherization works for Oklahoma and America!

*Names have been changed to protect the privacy of the subjects.

TO LEARN MORE ABOUT THE WEATHERIZATION ASSISTANCE PROGRAM, CONTACT:

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Visit the Weatherization Web site at: www.eren.doe.gov/buildings/weatherization_assistance
or call the Energy Efficiency and Renewable Energy Clearinghouse at: 1-800-DOE-3732



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